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Transactions
of
The Chartered Surveyors' Institution

SESSION 1935-1936.

AT THE ORDINARY GENERAL MEETING

Held at the Chartered Surveyors' Institution on Monday, 6th April, 1936.

Mr. J. M. THEOBALD (Senior Vice-President) in the Chair.

The CHAIRMAN said that he deeply regretted that the President's health did not permit him to take the chair that evening. The President had left a sick-room in order to preside over the Council meeting that afternoon and, under doctor's orders, he had returned home immediately the Council meeting was over. Undoubtedly it would be the wish of the meeting that the Secretary should write to the President to convey to him the deepest sympathy of the members upon the bad luck which had overtaken him, and their best wishes for a speedy and complete recovery.

NEW MEMBERS.

The following new members were presented by the PRESIDENT for formal admission to membership under By-law 32, and signed the Register:—

Fellow :

CLARK, FREDERICK BERNARD, B.SC.

Professional Associates :

DIXON, JOHN RICHARDSON
GODFREY, GORDON ERNEST
O'NEILL BAGNALL
GREVILLE-HEYGATE, CHARLES EDWARD
HUNT, RALPH BOBBETT
MARTIN, JOHN HARRISON

The CHAIRMAN said that they were honoured by having with them Viscount Bledisloe (Honorary Member). The Council and the members of the Institution very much appreciated the honour that Viscount Bledisloe had paid them in coming there so soon after his return to England from his brilliant term of office as Governor-General in New Zealand. With all the arrears of work that were awaiting him in England, he not only had made time to write the paper, but to pay the members of the Institution the additional compliment of coming there to deliver it.

VISCOUNT BLEDISLOE, in presenting his paper, said that a good many years previously their great Institution did him the honour of electing him an Honorary Member. He felt that for the first time he was making an attempt that evening to justify the distinction that was so long ago conferred upon him. He could not imagine how he was going to deal with the subject of his paper in twenty minutes, but he would do his best. There were no two countries situate at a great distance from each other whose conditions of life and rural economy were so comparable as Great Britain and New Zealand. That was mainly due to the fact that their latitude in their respective hemispheres was very much the same, and their size, although not their shape, was almost identical.

He was glad to see present that evening a distinguished New Zealand farmer, Captain Humphreys Davies, who was one of the few owners of a flock of Corriedale sheep in the North Island of

New Zealand, and who had bred some remarkably fine pedigree animals.

What was contained in this paper was necessarily a very cursory sketch, and perhaps on some future occasion and in a different place he might be allowed to say something about New Zealand farming from a scientific standpoint and to refer to several subjects with which he could not deal that evening, such as the serious prevalence in certain areas in New Zealand of injurious weeds. For instance, there was " piri-piri," or " biddy-biddy " as the farmers called it—a little burr which got into the sheep's wool and made it very difficult to market it. Then there was ragwort, in respect of which parasitic treatment had not proved very efficacious, and which was now with much more promise being checked or destroyed by sodium-chlorate. There was also gorse, which was a curse introduced long ago from England, like most other pests, and which in many areas it was extremely difficult without undue expense to prevent creeping all over good farmland. If he had had time he would have referred certainly to the grass-grub and to the cabbage butterfly, both of which were very serious insect pests, and also to the depredations of what were probably the worst vermin in the country, namely, deer. He spoke regretfully as a keen stalker. Deer, wild goats, wild pigs and opossums were all doing a considerable amount of damage in various districts to farm and orchard crops. Then there was the prevalence of fireblight in the orchards, which was aggravated by quickset hedges. Unfortunately, whitethorn, which was used in the hedges in parts of New Zealand, as in England, was a great harbourer of that particular pest.

A Discussion then took place on the Rt. Hon. Viscount Bledisloe's paper—

CONTRASTS AND SIMILARITIES IN THE FARMING OF GREAT BRITAIN AND NEW ZEALAND.

Mr. Robert Cobb (Vice-President) said he had great pleasure in proposing a vote of thanks to Lord Bledisloe, who had come there that evening at great inconvenience, and to whom they owed a deep debt of gratitude for giving up so much of his valuable time. Lord Bledisloe's name was a household word, not only on account of his brilliant record in New Zealand, but also his past record of achievements in the literary world, the conference world, the

committee world, the agricultural world, and his great practical experience of farming in all parts of the globe.

It was almost impossible to make a comparison between agriculture in New Zealand and agriculture in England. Lord Bledisloe had referred to two main contrasts, and those two contrasts were unclimbable fences. The first was the climate of New Zealand compared with England. In New Zealand, apparently, they could rely upon a certain amount of sunshine and a certainty of weather in the whole of the islands for a long period. In England they could not even rely upon it in one county or another or from day to day. The second fence was the fact that New Zealand was a great exporting country, whereas Great Britain consumed what they grew. There was perhaps a third contrast which it was difficult to get over. That was the fact to which Mr. Ramsbotham had referred in the House recently, that of the English population only 7 per cent. were interested in agriculture and 93 per cent. in the towns. That was a difficulty that the agriculturalists had to get over.

His Lordship had not referred to any costings in detail, but he should like to refer to costings briefly, and in a wide sphere, with regard to dairying and mutton production. Probably the rental value of the land was more or less the same in New Zealand as in England. Possibly the question of labour was about the same, although he did not suppose that they were bothered with the various wages boards and such things in New Zealand. Lord Bledisloe had not referred to rates and taxes, but they could assume for a moment that they were about equal. So far they were on a par, but in New Zealand, owing to the climatic conditions, there was no artificial feeding whatever. The stock being fed on pasture land all the year round led to a considerable saving of cost. Again, in New Zealand stock buildings were unnecessary, and consequently there was no question of interest on the cost of the erection of buildings and no expense of repair of buildings. Again, New Zealand farmers need cater only for the expense of wholesale distribution, whereas the English farmer had to cater more or less for retail distribution without getting the difference in the price. Those were only questions of £ *s. d.*; but there was one further very big difference in the expense of dairy stock and the raising of mutton, and that was the carrying capacity of the land. It had been said in the paper that in New Zealand they could keep five ewes and one cow per acre all the year round. There was nowhere in England that that could be done. Lord Bledisloe had referred to education and technical equipment. One often wondered how much that was the fault of the farmers. New Zealand, of course, was a pioneer country, and it was not bound, to use Lord Bledisloe's words, by "tradition and static conditions." That

was a very great point against Great Britain. It had often been said that heads of firms should only think, and he sometimes thought that the English farmer did not perhaps think as much as he might.

Lord Bledisloe had told them the story of how the New Zealand shepherd could shear 200 ewes. There was an old New Zealand shepherd who had been over in England for four or five years, and when he was told what Lord Bledisloe had said in the paper he said " That is perfectly true, but if I sheared sheep in England like I sheared sheep in New Zealand I should get the sack." How could they cater against a country like New Zealand, which had the whole world in front of it as markets? Great Britain took 80 per cent. of its produce, and it still had the whole world. Great Britain had absolutely nothing to export except their live-stock.

Summing-up the paper he had tried to see where there were points of contact. Perhaps there were a few points of practice in New Zealand applicable all the world over, including England: one was the question of temporary pastures. His Lordship advocated temporary pastures and ploughing them up at certain times and getting rid of old pastures and renewing with new. That was a matter which in England they were only just beginning to learn. Landlords put clauses in agreements saying that old pastures were not to be ploughed up. From what he had seen of some old pastures in England the sooner that some of them were ploughed up and new laid down the better.

In New Zealand they produced small carcases of 36 lbs. That was a thing which had to be catered for in Great Britain, because there was no doubt that the public were asking for small joints.

Reference was made to the value of improving stock by going in for pedigree and nothing but pedigree animals. In England they could do a great deal better if they could get the industry to take more active steps in improving the bulls and rams of the country. Grading and packing, which was a big item in New Zealand, was growing to be a bigger item in Great Britain. In that respect one should grade as the public wanted and not as the farmers thought that the public ought to want. There was often a great difference between the two.

His Lordship had referred to the value of co-operative selling and buying. That was a point which could be dealt with in Great Britain. Without disparaging Marketing Boards in the least, the efforts of the Boards were not taking quite that line. They were taking much more control of the industry than dealing with distributing and selling. His Lordship asked at the end of the paper for the invocation of urban sympathy. That had been asked for for very many years. He did not know whether they were going to get full urban sympathy, though it was growing. After all, the

urban population, like the rural population, were human, and as long as they could get their food a little cheaper he was afraid that they would buy from New Zealand.

There was another matter mentioned in the address, and that was water supply and irrigation. The Government during two years of drought took steps to improve country water supplies, but as soon as the rain came they forgot the matter. It was rather like what happened during the War with the food problem. He knew a man who kept 600 ewes on a farm a few years previously. That man went out of his way and put on a water supply, and he now kept 1,250 ewes with a consequent increase in the lambs, and also had a big head of cattle. If the water supply of England could be improved so much the better.

On behalf of the Institution he conveyed his heartiest thanks to Lord Bledisloe for the trouble that he had taken in preparing the paper and in coming before them personally to deliver it.

Mr. Francis Peter (Member of Council), in seconding the vote of thanks, said that he associated himself with the appreciation of Lord Bledisloe's paper, which had been so delightfully expressed by Mr. Robert Cobb. He was therefore in complete agreement with the Chairman of their Agricultural Committee, and it should be noted that farmers could agree when they wanted to do so, and that should be kept in mind when studying the agricultural press. As an Institution they were extremely fortunate in their Honorary Members. The Honorary Members not only provided a distinguished title-page for the list of members, but they took a very lively interest in the whole of the work of the Institution. No better illustration of that could be had than Lord Bledisloe's presence there that evening and the trouble and care that had been taken in the preparation of the paper. There were occasions when they felt rather depressed when looking for wisdom in high places. It would be comforting in the future to realise that someone or other must have recommended Lord Bledisloe as Governor-General of New Zealand. The decision of someone or other was undoubtedly most fortunate, because the success that Lord Bledisloe had been in that Dominion was common knowledge. He had heard the Prime Minister of New Zealand state what Lord Bledisloe had done in that country, and the Prime Minister conveyed the impression that Lord Bledisloe was indeed a real representative of their great King George, whose life was spent, not only in retaining the respect, but the love of his people. That was the position in New Zealand in the case of Lord Bledisloe and in the case of Lady Bledisloe as well.

He did not want them that evening to think of Lord Bledisloe merely as a Governor-General. He wanted them to think of Lord

Bledisloe as probably one of the first and, in any case, one of the greatest of Imperial agriculturists. Having that in mind, the last paragraph of the paper particularly appealed to his imagination. He had kept in touch to a certain extent with the development of agricultural policy, and he had become more and more convinced that no policy applicable to Great Britain could be a complete success without its being dealt with as part of an Imperial policy. Noticing the general trend of events, there was a distinct bias towards an Imperial policy for agriculture. The efforts of the Ministry of Agriculture, although necessarily piecemeal, were acquiring a cumulative effect and were gradually working round to the position that they would have to be supported by an Imperial policy. He hoped that when that policy was being considered the great knowledge of agriculture that Lord Bledisloe possessed would be brought into use by the powers that be. Perhaps it was rather a visionary aspect of the case to take, but one could look upon the Empire very much as one of their great landed estates, and the governing principles which had held in those estates could be applied with advantage in the gradual building up of Imperial policy. Those principles also conveyed to one the responsibility which they accepted with the land which had been handed down to them with untold suffering and cost. The land had been handed to them as a going concern, and it was their duty to get the highest production that they could out of it, no matter what marketing boards, or anybody, sought to do to limit production. Production was the one thing that was wanted, but he did not wish to discuss general farming matters within the time as his disposal. As an Institution they should not infringe on the preserves of purely agricultural societies, or a society such as the Farmers' Union, but it was part of their duty to do what they could to conserve all interests in the land. With their organisation, which was world wide, they should be able to build up from the new agricultural committees that they were forming an Imperial chain of committees throughout the world. When that policy was considered, both Lord Bledisloe and the Institution would be able to give material assistance to the Governments concerned.

He would like to have one little ray of reflected glory for the Gloucester, Somerset and North Wilts Branch. They were very proud that a member of their newly formed agricultural committee had read an excellent paper that evening. He was very proud of the fact that Lord Bledisloe was a Gloucestershire man, and he was still more proud that Lord Bledisloe was not only an Honorary Member but a working member of the Institution.

His Lordship had referred to 1,000 ewes and 40 or 50 cattle on a 150-acres farm. That rather reminded one of the cowman's boy

when he was told about the Ark. He said that there were not enough people there to feed the animals, to say nothing about cleaning them out.

Mr. G. J. N. DE ST. CROIX (Professional Associate Member of Council) said that he felt privileged indeed to be associated in supporting the vote of thanks to Lord Bledisloe for a most interesting paper. At the present time, when their agricultural industry was going through a phase which could be compared with the industrial revolution, or evolution as he thought it could properly be called, of the previous century, comparisons became particularly desirable, and the opportunity of profiting by experiences elsewhere, particularly from experiences in a country which had so many features in common with Great Britain, was to be welcomed. They could not learn from a master more able to speak with authority, who had been able to observe at first hand and yet from a detached point of view the trend of agricultural matters in New Zealand during the previous five years whilst he had held the distinguished position of Governor-General of that Dominion. No doubt it would be agreed that it was obviously easier to build afresh than to re-model on old foundations. Therefore Great Britain had difficulties to overcome as regards ownership, marketing, vested interests and the like, and, last but not least, the personal factor when one attempted to alter or mend the structure which had been built up during the course of so many centuries. As had been said by previous speakers, New Zealand had many great and obvious advantages. First of all there was the advantage of the climate, and, secondly, there was the organised marketing. As regards the climate, it appeared that his Lordship regarded it as a similarity, but those who lived in Great Britain would take it as a very great contrast. It was a great pity that the climate could not be dealt with in some way on a kind of quota system. As regards organised marketing, the British farmer was not a good co-operator left to himself, but when one considered for what a short time their agricultural new deal had been in operation one was impressed, when one thought of the innate conservatism of the countryside, at the strides that it had actually made. Only a very few years previously he had attended a meeting of farmers in the district where he lived where they were pressing for Government support. He had voiced the view that they would not be able to obtain Government support, however friendly the Government might be towards the agricultural industry, without having some control exercised over them in order to allay urban fear. He had suggested that the farmers would have to toe the line and conform to restrictions, to give up breeding the kind of stock that

they wanted to breed and to breed the kind of stock which the public wanted. He was howled down because he was told that it was Government help and not Government interference that was wanted. He could not impress upon that meeting that they would not get the one without the other, and yet how comparatively smoothly their new agricultural world was coming into being. It was not, of course, without its teething troubles. He thought that those were inevitable, but, nevertheless, he felt that the teams were settling down in harness together better than one would have thought was possible.

In the course of a very lucid paper his Lordship had raised many points of interest. His Lordship had told them that the link between town and country in New Zealand was more intimate than it was in the mother country. It appeared that Mr. Robert Cobb had rather a pessimistic outlook on that particular point. When one looked round one could see a certain improvement in the relations between the urban and the rural populations, and a greater understanding than there had been in the past. Both sections now appreciated their complementary interdependence. It was realised that unemployment on the land meant a drift to the towns which could be checked with an improvement in the prosperity of agriculture. The importance of an adequate home food supply in times of war was bracketed equal with problems of national defence. The leading article in the *Times* that morning had dealt with that very matter. Also in the forefront now there was the realisation that the food policy marched hand in hand with an improvement in the health of the community.

When his Lordship spoke of a higher standard of education amongst agriculturists in New Zealand, and of their being more receptive of new ideas, he was hardly being fair to the new generation of farmers that was springing up. No doubt one could agree with regard to the older farmers, but in scratching the ground one did find a quite unexpected store of knowledge ; education in the science of agriculture was proceeding by leaps and bounds. One found that the farmer was not quite the immobile person that he was popularly pictured to be.

One read with great surprise of the short-sighted policy of disallowing the importation of stock from Great Britain into New Zealand owing to the dread of foot-and-mouth disease. With Great Britain acknowledged to be the pedigree stock farm of the world, it seemed to be a most short-sighted policy, particularly seeing that the fear was completely unfounded.

One very interesting point was the evident ease of marketing in New Zealand. Apparently farmers did not have to concern themselves with that owing to their co-operative dairy factories and co-operative buying. The position was much more compli-

cated in the mother country. New Zealand was practically a sheep and dairy farm, whereas agricultural economics in Great Britain were complicated, not only within the narrower confines of the agricultural industry itself, but in relation to the widest aspects of Great Britain's economic system, and its criss-cross of trade arrangements with the Empire and with foreign countries. It would take time and the overcoming of many difficulties, but he thought that it would turn out all to the good in the end when the marketing schemes in Great Britain got over their teething troubles and farmers had to worry less about the disposal of their produce and could spend all their time in productive work. With milk and bacon production, sugar beet, potatoes and hops subject to more or less stringent marketing schemes, one did not have to look very far to visualise factory abattoirs for the disposal of beef, mutton and pork.

Towards the end of the paper Lord Bledisloe dealt with the question of emigration to New Zealand. One was puzzled to know what the next move might be. In a letter written to the *Times* on the 19th of March Lord Bledisloe dealt with the question, and said " It is unfortunate that, with an insularity of outlook, traceable to geographical detachment from the humming centres of world activity, a considerable proportion of New Zealand's loyal and lovable population deprecate the admission within her borders of either human migrants or pedigree live-stock from the motherland." It would be interesting to know whether New Zealand would welcome British settlers adequately supported with capital, or whether they would be regarded as interlopers, and sent back to the mother country as soon as they had been relieved of their capital, as one heard was the case in one particular Dominion. As regards finance, there was a great deal of money in Great Britain which assuredly could be well spent in New Zealand, but it seemed to him that a difficulty as regards finance was the present trend in New Zealand towards State socialism, which was likely to be looked at askance by private investors in the mother country.

There was, in his Lordship's letter, a very interesting paragraph which would probably re-echo what many present had in mind. Lord Bledisloe said: " Would that some modern Joseph " Chamberlain with the ardour of youth, the courage of his con- " victions, and, above all, penetrating vision, would rise up among " us and arouse this slow-moving Old Country from her present " lethargy and stimulate her to apply part at least of her immense " financial resources to the systematic development and peopling " of her vast territorial heritage covering one-quarter of the globe. " At least, the old mother, with all her accumulated knowledge " and experience, should surely point the way and not leave it to " her less experienced daughters to do so."

He had the very greatest pleasure in adding his voice in support of the vote of thanks for a most interesting paper.

Professor R. G. STAPLEDON, C.B.E., M.A. (Professor of Agriculture, University College of Wales) (Visitor) said that it was a great honour to support the vote of thanks to Lord Bledisloe for a most interesting paper. He (the speaker) had had the privilege of spending four very happy and very strenuous months in New Zealand, and, as his Lordship had said, it was a most attractive country for anybody to go and live in. He had very nearly stayed there himself. As had been pointed out in the paper, the difference between the New Zealand farmer and the farmer in the mother land was very interesting. Taking an average, the New Zealand farmer would probably be more alert than the farmer in Great Britain. Perhaps the reason was that in New Zealand they were so much nearer to land reclamation and to land improvement than they were in Great Britain. Nearly every farmer in New Zealand had had a hand, or he was still taking a hand, in land improvement and in making new land. He believed that that was one of the reasons why the New Zealand farmer was such a keen farmer, and such an active person. Of course New Zealand had marvellous grassland, and it could not possibly be otherwise, because New Zealand had a more perfect balance between enough rain and enough sun than any other country in the world, and if that could not make grass nothing could. In New Zealand they did understand the extraordinary importance of having temporary grass, and they understood out there, better than in the mother land, the use of phosphatic manure, He remembered being amazed at seeing an athletic person holding on to a thistle on a hillside (in the King Country) and, with his other hand, scattering phosphates over a piece of country on which nobody in England would possibly have thought of scattering phosphates. That was the sort of people they were in New Zealand, and it was the sort of country that they had. Since he had spent a little time in New Zealand he had continued to receive a very large number of letters from farmers of all grades in New Zealand. He knew that the fact that Lord Bledisloe had devoted so much attention to agriculture was very much appreciated by farmers of all sorts and kinds, by the big sheep men and the small men, in that most extraordinarily attractive dominion.

Captain HUMPHREYS DAVIES (Visitor) said that he was delighted to speak in support of the vote of thanks, but so much could be said that he was very nervous at trying to confine what he had to say within the space of two or three minutes. The

problem of the Empire as a whole had been very lightly touched upon. In connection with farming in New Zealand, and the mutual relations between New Zealand and the English farmer, there was a very big question at stake.

The Empire was faced, in the very near future, with an absolute struggle for existence. No reference had been made that evening to the Japanese people, but within the next few months in New Zealand they would have direct communication with Japan by no less than four major Japanese steamship lines, the N.Y.K., the O.S.K., and two other very well-known lines. The amount of wool that went to Japan was not sufficient to warrant this, and the inference was that the Japanese would make a bold bid for New Zealand trade. He had left New Zealand only a few weeks previously. He lived near Auckland. When he had got to his agents in Wellington he found there an enquiry from the Japanese Government for 135 of his sheep. The Japanese Government were an extremely able body of men, and they took every precaution to do everything scientifically. When he was in Japan a little more than two years previously he went to the Ministry of Agriculture. He spent a whole morning with the Secretary to the Minister. What he found going on there was an absolute eye-opener. Those people imported very high quality stock, and they did not care what they paid in Australia and in Canada. Probably they bought also from England.

The one failure that Lord Bledisloe had had was in getting the ban on the importation of high-quality pedigree stock into New Zealand from the mother land removed. Those present might have the power to help Lord Bledisloe with regard to that. He had seen an object lesson a few years previously in America in connection with Corriedale sheep. As everyone knew, that was a composite breed, as indeed was the British shorthorn. As had been said in the paper, the Corriedales were in origin a cross between Merinos and either Lincolns or Leicesters. When he went to America he saw the third and fourth generation of the best Corriedale sheep that had been imported in 1914. They had grown into a different and a less desirable type of animal. On the previous Saturday he had had another very vivid object lesson in seeing Lord Bledisloe's redpolls. He owned redpolls himself, but after seeing his Lordship's animals he was not so proud of his own. He had made Corriedale sheep farming pay handsomely. He lived in the North Island, and his fountain head was about seven hundred miles away. He went down himself, or sent down every year to the South Island and got the original foundation type, and if he had not done that he would not have been able to afford to be in England. It might be an impossible thing to do, but the members of the Institution were connected

with breeders in Great Britain, whether it was a question of Southdown sheep, or cattle, or horses. There were the New Zealand quarantine regulations, and they constituted an absolute ban. He thought that they might be able to get over them by getting, say, one breeder of Southdowns, or two or three different breeders of various breeds of cattle, to combine and buy a small island on the New Zealand coast, and having their own quarantine station and a man sworn as a constable on behalf of the Government to enforce the regulations. He thought that possibly that might be done. He might be talking nonsense. It had only occurred to him in travelling up in the train with Lord Bledisloe that afternoon. It sounded a frightfully expensive thing, but it would not be really so expensive. It might be a paying proposition to have an island, and on the mainland adjacent a farm where the pedigree imported stock and their progeny would be landed. They could possibly partially get over the obstacle of the six months' quarantine, and run a farm for inspection purposes by New Zealand buyers on the mainland. If one could get the rival breeders to cohere in their own interests, one would be doing a very great deal to help to raise the quality of stock in New Zealand.

Sir John Russell, o.b.e., d.sc., f.r.s. (Director of Rothampstead Experimental Station) (Visitor), sincerely thanked the members of the Institution for the invitation to listen to a most interesting paper, and with great pleasure he added his voice of thanks for what Lord Bledisloe had told them. He also had very pleasant recollections of a journey to New Zealand, which was undoubtedly a delightful country. As his Lordship had pointed out, the farmed area of New Zealand was much the same as in the motherland as also was the area of grassland. The farmers were of the same stock and at least as intelligent. The climate was claimed to be undeniably better. Everything appeared to be in favour of much bigger agricultural production, yet when one looked at the value for the agricultural output of New Zealand one found that it came to 50 million New Zealand pounds, which was very roughly 40 million English pounds, while the value of the output for Great Britain was approximately £240,000,000, namely, £200,000,000 for England and Wales when glasshouse and nursery produce was added, and about £40,000,000 for Scotland. There might be differences in methods of taking the statistics and the figures might not be strictly comparable, but they showed a wide difference in the agricultural outputs of the two countries. If one judged simply on output, it appeared that the English farmer, in spite of his defects, which had already been sufficiently enlarged upon, succeeded in turning out the goods. Why was that? There were several important differences between New

Zealand farming and their own farming. One was a difference in system. The New Zealand system was essentially specialised in two or three directions. The British system, or rather systems, for there were several, were usually far more general and far more complex. If one dared to lay down general rules in farming, one would say that on the whole a complex general system was likely to be more productive per acre than a more specialised system. The New Zealand system did not involve anything like the area of arable land used in Great Britain. Lord Bledisloe had said that there were 1·3 million acres of arable land in New Zealand ; here the figure was well over 12 million acres. As one knew, arable land could be made far more productive than grassland. A third difference, and it was a very big one, was in the number of men working on the land. Although England was predominantly an industrial and commercial country, nevertheless they had a much bigger agricultural population working on the land than New Zealand had. Therefore, although they might have less output per man, they got a bigger output per acre than New Zealand did. That added great point to the concluding remarks of Lord Bledisloe.

He thanked Lord Bledisloe very much for his courage on so many occasions in emphasising the need to New Zealand of a larger population. If the motherland, with less natural advantages in some direction than New Zealand had, succeeded in producing so much more than New Zealand, even allowing for any difference in the significance of the statistics, what could New Zealand do if only she were fully developed? He added tribute to the efficiency of the scientific and advisory services in New Zealand. The merits of their agricultural scientific experts were recognised in all countries in the world. There was no question but that New Zealand was so far only touching the fringe of great possibilities. That raised the question how long New Zealand could continue holding so delectable a region so thinly populated. They saw, on the one hand, this wonderful country, and, on the other hand, the overcrowded populations of certain countries in Europe and Asia. When one thought of the colossal powers that modern science put in the hand of an ambitious dictator, and when one reflected that a country could be held only so long as it was populated, one saw that there were elements of danger in the present situation. It seemed inevitable that in the future New Zealand must be more densely populated. Should the additional population be of British or of other stock? New Zealand had the choice now, but the time might come when she would have it no longer. He hoped that, while the choice remained, New Zealand would go on receiving British stock which had done so much to develop the country in the past and was undoubtedly

capable of continuing developments in the future. He again thanked Lord Bledisloe for the paper, and particularly for the courageous conclusion that had been drawn.

Professor HENRY ARMSTRONG, PH.D., LL.D., D.SC., F.R.S. (Emeritus Professor of Chemistry, City and Guilds College) (Visitor), said that he would much like to speak at length on the paper, but he felt that it was far too late. He would content himself by thanking Lord Bledisloe for having given them a most perfect cameo of New Zealand, enabling them to realise, particularly after the discussion that had taken place, what an important asset it was. He would like to follow Sir John Russell in complimenting Lord Bledisloe particularly on the courage with which he had raised the question of a larger emigration from Great Britain into New Zealand. As his Lordship had told them, New Zealand was living on the motherland at the expense of their agriculture in large measure. There ought to be some reciprocity. In the near future he believed they would be forced to consider everything they did in agriculture in the light of quality of produce—meaning by quality, food value. Plant growth in New Zealand was continuous all the year round, but what of cyclical variation in quality?

How did the various mineral deficiencies affect the quality of New Zealand produce? Being recognised, the deficiencies were presumably being more or less met ; but how long would they be able to afford to put upon the land the phosphate, potash, &c., that was needed? What provision was made in New Zealand to bring in iodine and potash and organic matter from the sea, if not to cultivate seaweed for the purpose?

Lord Bledisloe said nothing of organic manure. Surely some organised effort should be made to produce it in order to maintain, if not improve, fertility.

Most important of all would seem to be an intensive study of milk ; something more than butter-fat had to be thought of. The recent neglect to organise such study was nothing short of criminal.

He had had the great privilege of being associated with Lord Bledisloe during the few years before his Lordship went out to New Zealand as a member of the Lawes Trust Committee. He then had reason to appreciate the deep interest which his Lordship took in agriculture. When he heard from friends in New Zealand what his Lordship was doing, it was quite clear that no Governor-General sent out from Great Britain had ever done a greater scientific work on behalf of his great King. He was very glad to have an opportunity of testifying his great appreciation of Lord Bledisloe's work.

The CHAIRMAN said that he could only hope that the warm welcome which had been accorded to Lord Bledisloe and the enormous amount of interest that had been taken in the paper, as had been shown by the discussion, had in some way compensated his Lordship for all the time and trouble that had been spent on their behalf. He was very grateful to their guests who had been good enough to come there that evening and take part in the discussion. In putting to those present the vote of thanks which had been proposed by Mr. Robert Cobb, the Vice-President, and seconded by Mr. Francis Peter, he could assure his Lordship that it was no mere formality, and he knew that it would be received with acclamation.

The vote of thanks was carried with acclamation.

VISCOUNT BLEDISLOE, in reply, thanked the various speakers for the much too laudatory observations which they had been good enough to make, first in regard to such services as he had endeavoured, on behalf of His late Majesty, to carry out in New Zealand, and, secondly, in respect of the paper which he had submitted. He was perfectly conscious that he made a good many statements in his paper that might be open to criticism, and others that were worthy of greater elaboration than he had been able to give to them in the course of the somewhat epitomised comparative survey that he had endeavoured to make of agricultural conditions in the motherland and in New Zealand. He had not time to answer in detail the very few criticisms which had been made, or indeed to reply to all the questions which had been put to him. He thanked Mr. Robert Cobb for his very kind speech. Mr. Cobb had said that no reference had been made to "costings," mentioning especially rent and labour. There were very few people who paid rent in New Zealand. With regard to the cost of labour, it was on a higher scale on the farms in New Zealand than it was in Great Britain. In fact, all labour charges were higher in every industry in New Zealand than they were in Great Britain. In his paper he said "General farm hands on dairy "farms receive about 30s. per week in addition to their board and "accommodation." He supposed that one might say that would be at least equivalent to £2 a week, or possibly a little more. That applied only to the general farm labourer and not to highly skilled men. When he made reference to five ewes and a cow as representing the farm stock of certain areas in New Zealand, he was referring only to the most fertile areas in the whole of North Island, and particularly to that of the Waikato district.

Mr. Cobb had made one observation which might suggest the idea that New Zealand was a highly favoured country in the matter

of the disposal of her produce. He was afraid that she was anything but favoured. Mr. Cobb said that New Zealand "had the "whole world for its exports." Unfortunately New Zealand was a greatly isolated country, and there was enormous areas of oceanic space between New Zealand and the great consuming centres of population of the world. The cost of transport was a serious obstacle to the ready disposal of her products, except to the Old Country from which she had largely borrowed her capital and mainly derived her manufactured commodities, and which had so far been good enough to take the greater part of her produce. She had endeavoured, with some success, to get into Japan with her wool, but, unfortunately, there was no direct shipment to Japan, and the cost of trans-shipment on the Australian coast seemed to be the element that knocked out any economic advantage in disposing of any large amount of her produce, including her dairy produce, in that country. So far as any other country was concerned, he had studied the subject pretty closely, and he had come to the conclusion that, for the present at any rate, there did not seem to be any very rosy prospect, with all the economic nationalisation that characterised almost every country in the world, of her disposing of her produce to an appreciable extent in other countries than Great Britain. After all, if Great Britain did not take her produce, how was New Zealand going to meet the service of her national debt, which was largely owed to Great Britain?

He was particularly grateful to his old friends Professor Armstrong and Sir John Russell for emphasising the question of immigration into New Zealand of British stock, human and animal, in preference to stock from any other country. The new Labour Prime Minister had during the last fortnight heartened him very considerably by a statement to the effect that the crying need of New Zealand was increased population. The Prime Minister had given a warning that they must be careful not to allow revived immigration to affect injuriously by competition the large number of New Zealanders who were still out of employment in the Dominion. But, of course, they must accompany their migrants as far as possible with British capital. There was no country in the whole of the British Empire that was so starved, considering her great national resources, in the matter of British capital as New Zealand. Whatever extreme politicians might choose to say, capital was the great lubricant of employment, and consequently of immigration.

He thought that his friend Mr. Francis Peter was a little affected by Gloucestershire patriotism and a sense of fraternity to a neighbour in the very kind remarks that he had made. He congratulated Mr. de St. Croix upon a very able speech. He

quite agreed with what he had very truly said, that it was relatively difficult to repair an old structure, meaning thereby an old rural or agricultural system such as existed in Great Britain. It was very much easier to begin *de novo*, as was being done in New Zealand. As Professor Stapledon had correctly indicated, every farmer there was either a pioneer or he was only remote one or two generations from a pioneer. An extremely interesting and stimulating process of land improvement was being carried out, and the farmer in New Zealand was seeing a bigger result from his enterprise and from his capital than most farmers in Great Britain could possibly see.

He thanked those present very much for their most kind reception of the paper. He apologised for its inadequacy in many respects, but it was a big subject. Perhaps some of those present would give him an opportunity on some other occasion of addressing them further in regard to a country which after five years' most enjoyable sojourn in it he had learned to love to a degree for which he could hardly find expression in words.

Paper No. 569.

SURVEYORS AND THE LAW.

By Sir Lynden Macassey, K.B.E., K.C., LL.D., D.Sc. (Associate).

Paper to be read at the Ordinary General Meeting of the Chartered Surveyors' Institution on Monday, 4th May, 1936.

For many years now I have enjoyed the honour and appreciated the privilege of being an Associate of this eminent Institution, and it has formed, I am sorry to say, a matter of reproach by some of your former Presidents that I have never made any contribution to its proceedings. When, therefore, my old friend your President for this year had read the most admirable and instructive Presidential Address, to which I, and I am sure all of us, listened with the greatest profit and pleasure, I felt that the time had come to try and atone for my shortcoming in the past, and I was moved to promise him to provide a paper during his year of office. For your having to listen to me this evening reading what, I fear, is not so much a reasoned paper as a collection of discursive observations strung together on a somewhat disjointed theme, you must throw on your President the full responsibility.

In the various spheres of activity in which I have spent and spend my working life I have been and am continually associated with or confronted by members of the Chartered Surveyors' Institution, but in none more constantly than in my practice of the law. It therefore occurred to me that under the compendious and somewhat elastic title which I

have chosen for the paper that I propose to read to-night I might be able to assemble for your consideration a few observations of more than merely an ephemeral interest on some of the points of contact between your profession and the law.

There is only one other professional practitioner outside the law who, like the surveyor, has to add to his professional qualifications a knowledge of branches of the law almost as great as his knowledge of the special science and technique of his own profession. That other practitioner is the accountant. Most certainly your profession could not perform the services which it discharges with so much advantage to the community did you not combine with your professional qualifications proper an extensive and exact knowledge of those branches of law which more directly concern the particular domain in which your practice lies, whether you be a land surveyor, a rating surveyor, a quantity surveyor, a mineral or mining surveyor, or a member of some of the other classes of surveyors who all combine together to form the impressive membership of this great Institution.

That being so, it is happily a matter for congratulation that, in this country, the profession of surveyor stands in cordial relationship to the practitioners of the law, whether they be barristers or solicitors, a relationship quite different from that which exists in some of the British Dominions overseas or in the United States of America. The relationship between the surveyors and the lawyers in the United Kingdom I think I may fairly describe as one of comradeship and co-operation. To no small extent is it due to the traditions which the Chartered Surveyors' Institution has established in your profession, and to the loyalty of its members in maintaining and applying them. It is recognised that there are clearly demarcated boundaries which mark off the limits of the professional practice of the law and of surveying, and that it is in the interests of the two professions and of the public that those frontiers should be

honoured. There is unfortunately no such recognition of frontiers in the British Dominions and the United States of America. As an Honorary Member of the American Bar Association and also of the Canadian Bar Association, it has been my privilege to be present at annual meetings of those two great bodies. At every such meeting one of the most important items of business is the consideration of the Report of the Committee which reports on what is called sometimes " Invasion of the Law," and sometimes " Unauthorised Practice of the Law." You know, of course, that neither in the United States of America nor in Canada is the legal profession divided into " barristers " and " solicitors." What is called " fusion " exists. A member of the Bar Association may be either a " trial " lawyer " or an " office lawyer " as his inclinations move him and opportunity presents itself, or he may act as both should necessity compel him.

The report of this Committee is usually concerned with well-authenticated cases of the preparation of legal documents and the giving of legal advice, and the representation of parties to proceedings by persons who are not members of the Bar Association. I am sorry to say that the person most frequently complained of is a surveyor. By way of illustration may I refer to a copy I have just received of the report prepared by the Committee of the American Bar Association on " Unauthorised Practice " of the Law," which is to be presented next August to the annual meeting of the Bar of the United States of America in Boston (Mass.). This report was drawn up by that Committee of the American Bar Association after a conference between the Committee and the National Association of Real Estate Boards, which in general may be said to represent in the United States of America the practitioners whom in this country we should call surveyors and house and land agents. The report this year is an attempt to provide in regard to certain matters working limits of demarcation, between the professional activities in the

United States of America of the lawyer and the surveyor, and runs as follows:—

"It is the opinion of the Committee on Unauthorised Practice of the Law of the American Bar Association that it is not against public interest or contrary to public welfare for one not licensed to practice law to appropriately fill in the blanks of a legal instrument which, within a reasonable time of its use, has been selected or prepared specifically for that particular use by one licensed to practice law who has also instructed such a user of the instrument fully regarding the essential details requisite to execution and creation of a valid, legally operative instrument, and regarding any further act of filing, recordation, or similar step prerequisite to protection of the parties and their rights.

Except as above stated, it is, in the Committee's opinion, not in the public interest for one not licensed to practise law to select, to adopt, to adapt, to draft, or to otherwise prepare or shape a legal instrument for use for a particular purpose, or under particular circumstances or conditions, or in a transaction or dealing, or as appropriate to the accomplishment of specific objectives.

This is equally true whether the occasion for giving the advice, or rendering the service, or preparing the instrument may seem to concern something simple, or that it seems to be done without compensation, or that it seems to be incidental or ancillary to the actor's business, trade or profession.

Particularly does the Committee consider it contrary to public welfare and substantially to the public injury for one not licensed to practise law and who has an interest adverse to, or in conflict with, that of the parties to a transaction, or either of them, and to the instrument evidencing it (or an interest which may be, or become, so), to select, adopt, adapt, draft, shape or otherwise prepare such an instrument.

These principles, in the Committee's judgment, apply to a real estate dealer, real estate agent, real estate broker, or similar representative and intermediary who, when his compensation depends upon the successful closing and conclusion of the transaction gives legal advice, renders legal services, or selects, adopts, adapts, drafts, shapes or prepares the legal instrument used to consummate and evidence the deal. The interests of one whose compensation so depends are necessarily and inevitably opposed to those of the parties. His interests will be favoured, promoted and assured as against

> theirs if neither of the parties he is bringing together in the transaction obtains independent counsel or advice or makes, or causes to be competently made, a thorough, independent inquiry into (*a*) the state and condition of the title, of existing incumbrances, and other matters substantially affecting their rights and interest ; or (*b*) as to the suitability of the instrument and its provisions to actually contain and state the parties' agreement ; or (*c*) as to any other of numerous matters inquiry into, or investigation of which, may delay, substantially change, or even prevent the deal entirely."

I venture to think that the Council of this Institution would subscribe unreservedly to the conclusions I have just read of the Committee of the American Bar Association, and that the standards of professional practice which it enforces upon the members of this Institution go far beyond what the American Bar Association recommends should apply to the surveyors' profession in the United States of America.

You may be interested to hear that I have been assured by leading surveyors and prominent members of the Bar in Canada and the United States of America that the very unsatisfactory relationship which exists in both those countries, and which they mutually deprecate as inimical not only to the interests of both professions but more especially to the interests of the public, they attribute to the fact that there is no great professional institution in existence in either country which can establish in the surveyors' profession the same high standards of professional conduct, and, what is more, rigorously enforce their observance, as does your distinguished Institution.

If the relationship between surveyors and practitioners of the law in some of the British Dominions and the United States of America could be remodelled with advantage on the relationship as it exists in this country, on the other hand, in my view, with outstanding public benefit could the legal status of surveyors in this country be elevated to that which obtains in the British Dominions (taking them generally) and in most of the States in the American Union. In this country there is no legal prohibition on any person,

however uneducated and devoid of training, holding himself out as a surveyor in the most extended sense. It is true he cannot call himself a member of this Institution, nor a Chartered Surveyor, but he can style himself a surveyor and leave his client to find out by actual experience his incompetence to act or advise as such. Not so, as a rule, in the British Dominions, or in the United States of America. There it is recognised as a matter of public policy that surveyors perform professional functions which are fundamental in the development of the community, agriculturally, industrially and socially. It is recognised by law that it is not in the public interest that those important functions should be discharged by insufficiently educated or inadequately qualified persons. Hence the profession of surveyor is generally made a "closed" profession. If it is right, as I personally think it is right, that it should be a closed profession in new and growing communities, it is surely infinitely more important that the profession of surveyor should have the legal status of a closed profession in an old settled country like Great Britain and Northern Ireland. In the United Kingdom we have numerous Acts of Parliament, statutory rules and orders, by-laws and decisions of administrative or controlling authorities which govern town planning, housing, laying out of streets and roads, building, construction of sewers, and innumerable other matters of prime importance to the social welfare. Apart from the officials of the municipal, local government and public health authorities, it is to the members of the surveyors' profession that the public have to turn for skilled advice and expert guidance in many complex and frequently recondite problems arising out of these various matters. It is absolutely wrong, in my opinion, that any person should be able to hold himself out as a surveyor, and competent to advise or direct operations in regard to any of these matters, unless he is properly qualified so to act. I should like to see it prohibited by law that any person should practise as a surveyor unless he is a member

of this Institution, in exactly the same way that no person may practise in England as a barrister unless he has been called to the Bar by one of the four Inns of Court, nor as a solicitor unless he has been admitted as such by the Law Society, nor as a medical practitioner unless he has been placed upon the General Medical Register, and, similarly, in Scotland and in Northern Ireland. I am quite aware that it would lead to controversy with certain other associations and occupations whose spheres of activity to some extent penetrate into the domain of your profession. But surely that problem can be solved in this country as it has been solved in other countries. Such incidental or occasional practitioners of the science and art of surveying could be allowed to continue to do so efficiently or inefficiently, as is their custom, until they die or retire from business, but no new "entrants" of the same type would be permitted. In this way in the person of the Chartered Surveyors' Institution, one responsible, controlling and disciplinary authority for the surveyors' profession proper would be established with the greatest advantage to the public, the Government departments and the country.

It is part of the special domain of the student of comparative law to prosecute analytical investigations into the origin of legislation. Those origins differ widely in different countries. Speaking broadly, so far as administrative law is concerned in this country, legislation has been passed to remedy "mischiefs" which have outraged the public conscience, to provide new codes of law founded on the recommendations of commissions and committees of inquiry, to meet the needs or to control the development of new or changing conditions of society, industry or commerce, to apply to the country generally provisions which have had a beneficial local application, or to give effect to the programme of political parties that have proved successful at general elections. But in this country, as compared with other countries, there has been a very distinctive origin of a considerable part of our administrative law, that is to

say, the adoption and enactment by Parliament, in the shape of general legislation or the application by Government departments by means of statutory rules and orders under powers of delegated legislation of what is at the time the standard practice of the great professions whose members are concerned in the practical administration and control of the matters with which the legislation and rules and orders deal. Government departments with us quite properly do not regard it as any part of their duty to be "pioneers."

A very slight historical investigation into the origin of our administrative law is sufficient to show that many of its branches owe much of their contents to the principles as practised by the surveyors' profession. Perhaps none is so great a debtor to that profession as is the law of compulsory purchase. That I may conveniently take as a useful illustration. The curt and compendious provisions relating to compensation in the case of compulsory purchase as laid down in the Lands Clauses Consolidation Act, 1845, you will remember, are no more than these:—

Section 63:

"In estimating the purchase money or compensation to be paid by the promoters of the undertaking, in any of the cases aforesaid, regard shall be had by the justices, arbitrators or surveyors, as the case may be, not only to the value of the land to be purchased or taken by the promoters of the undertaking, but also to the damage, if any, to be sustained by the owner of the lands by reason of the severance of the lands taken from the other lands of such owner or otherwise injuriously affecting such other lands by the exercise of the powers of this or the special Act, or any Act incorporated therewith."

Section 68:

"If any party shall be entitled to any compensation in respect of any lands, or any interest therein, which shall have been taken for or injuriously affected by the execution of the works and for which the promoters of the undertaking shall not have made satisfaction under the provisions of this or the special Act, or any Act incor-

porated therewith, and if the compensation claimed in such case shall exceed the sum of fifty pounds, such party may have the same settled either by arbitration or by the verdict of a jury as he shall think fit," &c.

These extremely vague and not too illuminating provisions of the Lands Clauses Consolidation Act, 1845, did not make their appearance for the first time in that Act. They were provisions which had been appearing in many earlier Private Acts that had authorised the compulsory acquisition of land for various kinds of public works which were common before 1845, *e.g.*, turnpike roads, canals, docks, railways, &c. Could there possibly be provisions less explicit? But it did not matter.

The principles on which surveyors consistently fixed compensation for the value of land taken compulsorily and also compensation for injurious affection of land were at the time known and established. It was generally accepted that the provisions in the Lands Clauses Consolidation Act, 1845, merely gave effect to and continued what was the then existing well-settled practice of surveyors. There is quite sufficient evidence extant to show what were the principles on which surveyors fixed before 1845 compensation for land compulsorily acquired for or for land injuriously affected by the construction of public works. The principles were simple, equitable and reasonable. The complexities, the inequitableness and the unreasonableness that characterises much of the present principles on which, according to English law, compensation is now assessed in the case of compulsory purchase is entirely due to the interpretation which the Courts in various cases have put upon Sections 63 and especially Section 68 of the Lands Clauses Consolidation Act, 1845, thereby forcing radical divergence from the practice of surveyors which prevailed at the time the Act was passed. The difference in the principles which apply to the payment of compensation for injurious affection, and the difference in the measure of compensation when compensation is payable, according to whether some land of

the claimant is taken, or whether none is taken, was not a doctrine invented by surveyors. It was forced on surveyors by decisions of the Courts. Surveyors did not recognise any difference whatever in the two cases until the Courts compelled them to do so. The distinction does not exist, so far as I know, in any other code of law than the English Lands Clauses Acts. What equitable justification can be advanced for a principle of compensation which insists that one man, if he has a square foot of land compulsorily acquired, may claim compensation for the injurious affection of his other lands held with the square foot of land, but that another man who suffers in fact exactly the same injurious affection is entitled to a much lower standard of compensation or possibly no compensation whatsoever, if no land is compulsorily acquired from him? The distinctions which the Courts have drawn in this respect, and which were quite contrary to the accepted practice of surveyors, are quite unintelligible to foreigners and even to American lawyers, in most of whose states the English common law prevails, just as in this country. Take the case of the owner of important premises in which a profitable industrial or commercial business is being carried on. Land of his, which constitutes the access to his business premises, is compulsorily acquired. As the law stands he is entitled to compensation covering three distinct elements of loss—(1) the value of the land acquired ; (2) the depreciation in the value of the remainder of his premises ; (3) his trade loss through his being deprived of his access. But supposing no land of his is acquired, and that what happens is that land belonging to someone else is compulsorily acquired over which he possesses a right of way with the result that he is equally effectually deprived of his access to his business premises. In this case, under the decisions of the Courts, he is entitled only to compensation for the depreciation in the value of his premises and to none at all for trade loss through having the access to his premises destroyed and perhaps his business ruined. *Hewett and Others*

v. *Essex County Council* (44 T. L. R., 373) is a recent case in point. As I have stated, surveyors as reasonable persons made no distinction whatever in the two cases until they were compelled to do so by decisions of the Courts.

Perhaps the most startling inroad made by the Courts into the practice of surveyors in assessing compensation has occurred in connection with the Metropolitan Paving Act, 1817, better known as Michael Angelo Taylor's Act. If land is acquired under that Act—for example, for street widening purposes—from a person who is a freeholder, leaseholder or tenant-at-will, the practice of surveyors has always been to give compensation not merely for the value of the land acquired but also for the consequential injury (which in the case of a business might be considerable) caused by its acquisition. And surveyors naturally allowed compensation under both heads whether the owner of the land acquired was a freeholder, a lessee or a tenant-at-will. But the Court has now held in the case of *Courtaulds, Limited,* v. *City of London Corporation* (1926), 2 K.B., 506, that while under Section 82 of that Act a lessee and a tenant-at-will are entitled to compensation for consequential injury, a freeholder is entitled to none! So the only safe course for any person who is the freeholder of any important property, part of which may be taken under Michael Angelo Taylor's Act, is to create an artificial leasehold interest in respect of which compensation for consequential injury can be claimed. On what ground of reason or equity can such differentiation be supported? But it is the law.

It is probably in the capacity of expert witnesses that surveyors are brought into closest contact with the law. Certainly in that capacity they constantly afford assistance of an invaluable character in the administration of justice. To your profession, therefore, a short description of the responsible and yet restricted functions assigned to expert witnesses by the British system of judicial procedure may be of interest, and assist you to discharge even more efficiently your professional duty to the advantage of your

client. According to the English system it is exclusively the function and duty of the jury (or the judge or tribunal if there is no jury) to form their own opinion and arrive at their own conclusion in regard to the fundamental facts of the case, to which, when found, the judge or tribunal will apply the appropriate rule of law for the purpose of deciding the questions at issue in the case. The presumption is that the jury, whose duty and function it is to form a judgment on the facts of the case, is as capable of doing so as any witness. As the duty of witnesses was limited to informing the jury concerning facts, their opinions were not admissible in evidence. The jury had to find on the evidence before them whether certain facts did or did not exist ; they were not allowed to be influenced by opinions about those facts expressed by witnesses who gave evidence before them. This worked admirably in early days when life was simple and social conditions were not complex.

But as commerce, industry and communal life developed, it was gradually established that a strict enforcement of the rule in all cases impeded rather than assisted the administration of justice, and an inroad was made into the universality of the rule in accordance with the sensible and healthy legal principle *" Cessante ratione legis, cessat ipsa lex."* So when certain facts had to be judged and interpreted, men of skill were called in who could interpret phenomena which ordinary men could or could not safely interpret. As an eminent American jurist, in an interesting exposition of the origin of expert evidence, has put it: " They (*i.e.*, " experts) judge the phenomena, the appearances or facts " which are presented to them, and testify to that which " in truth these signify or really are ; they estimate " qualities and values. We say that they testify to opinion. " In truth they are ' judging ' something, and testifying " to a conclusion upon a matter of fact. It is perfectly " well settled, in our law, and as it would seem elsewhere, " that such opinions or judgments are merely those of a " witness ; they are simply to aid the final judges of fact,

" and not to bind them. The last judgment is still for the " jury, or other judge of fact ; that judgment is not one " of law."

The result to-day is, that in the English system on questions of science, skill, trade, and the like, persons who, from training, knowledge, experience, or the practice of their profession, are specially conversant with the subject-matter, are permitted to give what is rather loosely called " opinion " evidence. By foreign jurists they were first called " experts "—an honourable designation which has been rather degraded in the English vernacular by amplification into " expert witnesses," an expression of quite a different shade of meaning. According to the English system, the evidence of experts is accepted on the principle embodied in the maxim *" Cuilibet in sua arte perito est " credendum."* The principle has been well stated by Mr. Smith in his original note on *Carter* v. *Boehm* in " Smith's " Leading Cases." " The opinion," he says, of witnesses " possessing peculiar skill is admissible wherever the sub- " ject-matter of inquiry is such, that inexperienced persons " are unlikely to prove capable of forming a correct " judgment upon it without such assistance ; in other " words, when it so far partakes of the nature of a " science as to require a course of previous habit or study, " in order to the attainment of a knowledge of it."

The weight to be attached to the evidence of experts is, of course, entirely a matter for the tribunal. It has to form its own judgment, and cannot substitute for it the opinion of any expert, however distinguished or eminent. Tribunals have undoubtedly gone far astray by not attaching sufficient weight to expert evidence. There is the classic instance of an eminent civil engineer who when giving evidence before a Parliamentary Committee in the very early railway days stated that in his opinion steam-carriages might possibly be expected to travel on railroads at the rate of 10 miles per hour. Cross-examining counsel, in a tone of withering contempt, said he would not ask him another question, and the

Chairman of the Committee ordered him out of the witness chair. Stephenson's evidence before the Committee on the Liverpool and Manchester Railway Bill had a somewhat similar contemptuous reception.

On the other hand there has been considerable justification for the distrust expressed by some eminent judges of "expert witnesses," for which such witnesses have only themselves to blame. Persons who presume to give "expert" evidence with little or no qualification and whose dogmatism is only equalled by their ignorance; persons who throw honesty to the winds, and under no fear of prosecution for perjury, for it is almost impossible to convict a person of that offence who only swears to his belief, twist facts and their interpretation of them to any extent to further their client's case; persons who adopt the rôle of advocate, these have brought discredit upon what is and should be the honourable calling of an "expert witness." Unfortunately the tribunal must listen to all such persons when they enter the witness box. There is no standard, it has been well said, by which any court or tribunal can measure *a priori* the integrity of any expert witness, or determine the amount of knowledge or skill which he possesses.

It is therefore not altogether surprising to read such an outburst as that made by Lord Campbell a hundred years ago in the Tracy Peerage case (1839, 1843), 10 Clark and Finnelly 154, at page 191, in reference to a hand-writing expert: "I do not mean to throw any reflection on Sir F—— "M——. I dare say he is a very respectable gentleman and "did not mean to give any evidence that was untrue; but "really this confirms the opinion I have entertained, that "hardly any weight is to be given to the evidence of what "are called scientific witnesses; they come with a bias "on their minds to support the cause in which they are "embarked; and it appears to me that Sir F—— M—— if "he had been a witness in a cause and asked on a different "occasion what he thought of this hand-writing would have "given a totally different account of it."

As so many members of your Institution are frequently engaged as "expert witnesses," it may be of interest for you to know the standards which that very experienced Judge, Sir George Jessel, the Master of the Rolls, applied to the appraisement of expert evidence. He himself describes them fully in the case of *Lord Abinger* v. *Ashton* (1873), L. R., 17, Eq. 358, which was a case in which the owner of certain seams of coal, which he had leased, sought an injunction against the lessee to restrain him from working the seams otherwise than with proper skill and ability, in the best and most effectual manner, and to the best advantage and according to the common mode and usual practice of working coal mines. The case largely turned on the working by the lessee of lower seams of coal before commencing to work the higher seams and the effect of doing so on the ventilation of the mine. A considerable number of "experts" were called on both sides, and Sir George Jessell had to judge between them, and this is his interesting and instructive description of how he did it:—

> "Now I will consider the evidence on this point (*i.e.*, the working of the lower seams before working the upper seams), but before doing so I must say how the plaintiffs contest it. They contest it by producing the evidence of some experts, whose evidence was met by at least as many experts on the part of the defendants. As to this, I may say what I think I have often said before, that in matters of opinion I very much distrust expert evidence for several reasons. In the first place, although the evidence is given upon oath, in point of fact the person knows he cannot be indicted for perjury, because it is only evidence as to a matter of opinion. So that you have not the authority of legal sanction. A dishonest man, knowing he could not be punished, might be inclined to indulge in extravagant assertions on an occasion that required it. But that is not all. Expert evidence of this kind is evidence of persons who sometimes live by their business, but in all cases are remunerated for their evidence. An expert is not like an ordinary witness, who hopes to get his expenses, but he is employed and paid in the sense of gain, being employed by the person who calls him.
>
> Now it is natural that his mind, however honest he may

be, should be biased in favour of the person employing him, and accordingly we do find such bias. I have known the same thing apply to other professional men, and have warned young counsel against that bias in advising on an ordinary case. Undoubtedly there is a natural bias to do something serviceable for those who employ you and adequately remunerate you. It is very natural, and it is so effectual, that we constantly see persons, instead of considering themselves witnesses, rather consider themselves as the paid agents of the person who employs them.

Accordingly we find in doubtful cases the most remarkable results. Take this case: there are two questions; one, whether sufficient ventilation exists for three mines; the other, whether the underlying *Cannel Mine* ought or not to be worked in advance of the *Black Mine*. Well, we have the witnesses giving evidence for the plaintiffs' view of the matter, or the defendants' view, according as they are sought out and paid by each. It is very natural, and just what one would expect, but it leads one to distrust their evidence. There is also this to be said against them, namely, that their evidence is not the evidence of fair professional opinion. The men are selected according as their opinion is known to incline.

Suppose a person wants to sell a house, and as he wants a very high value put upon it he sends to ten valuers, and out of these he selects the three who have put the highest value on the house. The purchaser wants a very low value, and selects out of a number of valuers three of the lowest. Each set of valuers values high or low according to the requirements of the person who employs them. I have known the same sort of thing done even as regards medical evidence. The consequence is, you do not get fair professional opinion, but an exceptional opinion by evidence selected in this way.

That being so, when I have expert evidence I am, as I said before, very distrustful *à priori;* and I am anxious to ascertain the character of the experts and to see the position they occupy.

In this case I have this circumstance, that of the five experts for the plaintiffs four are ordinary experts, the fifth is an agent for the plaintiffs and in their regular employment, and that being more continuous his bias would be rather greater. When I look to the defendants' witnesses, three of them are of a very different character. The first, *Wynne,* is not in the ordinary sense an expert witness at all. He is the Government Inspector of Mines and was not paid for this

purpose. The advice he gave was given in the course of his employment as Government Inspector, and with a view to the safety of the mine. It was given before there was any dispute. The advice he gave was given long ago, and it was advice upon which the defendants were not willing in the first instance to act. As regards *Higson* and *Cross*, although not of such good position as *Wynne* in these respects, they are in a better position than ordinary experts. They were called in to advise the defendants before any contest arose. Their opinion was given in the shape of a formal report and not with a view to the success of the suit. They are parties interested, in the sense of acting for the defendants, to assist them in giving *bonâ fide* advice for the more advantageous conduct of the mine, but not to assist them in the litigation. Therefore I look upon their evidence as much better and more to be depended on than ordinary expert evidence.

If, therefore, the witnesses were all equally positive, I certainly should prefer the evidence of the defendants ; but when I come to examine the plaintiffs' evidence I find the evidence is not nearly so positive as that of the defendants. As regards this matter of the ventilation, the majority of the witnesses say there would be sufficient air if the passages in the lower mines, especially the *Black Mine*, were constructed on a larger scale.

On the whole I am satisfied, on the balance of testimony, that the defendants are right on this point, and that it would be dangerous to continue the working of the *Town Lane Mine*, together with the *Black Mine* and the *Cannel Mine*. Therefore I ought not to interfere by injunction, and on this point the plaintiffs' case fails."

In view, therefore, of the critical attitude adopted by courts of law and experienced tribunals towards expert witnesses, anyone assuming the rôle of an expert witness on behalf of a client would be well advised to avoid the excesses to which inexperienced and over-zealous expert witnesses are prone. It is fatal for them to persist in refraining to recognise that there may be, and usually are, two sides to every case, and to refuse to make admissions where admissions ought fairly to be made. There is nothing which so detracts from the weight of an expert's evidence or makes it more easy to subject him to damaging

cross-examination. Equally fatal is it for him to assume the rôle of advocate for his client—that is not his function—or to seize every opportunity he can to make a speech for his client instead of confining himself to answering questions. I can imagine nothing more useful for the students and younger members of this Institution than a course of instruction on the giving of evidence in judicial proceedings. It is not merely a science ; it is an art, and can just as easily be acquired by instruction as by experience founded on trial and error, which is always a painful process.

I now pass from the function which so many of you frequently discharge as "experts" in assisting with evidence the tribunal, to that when you act as the tribunal itself in the capacity of an arbitrator. Perhaps now the frequency with which you do so is less since the appointment of "official arbitrators." As to whether the appointment of official arbitrators was a good thing or not you will all have your own opinion. I have heard one view expressed by claimants and an opposite view by local authorities. But I do say this, they are probably the most overworked set of officials in this country, whose work is so heavy as to leave them quite insufficient time for the due consideration of the cases which they hear.

There is, however, in every direction a steadily increasing tendency to resort to arbitration for the settlement of disputes in preference to proceedings in the law courts. In spite of all the new procedure in the courts for expediting and simplifying and reducing the cost of legal proceedings, the public, especially business men, are quite convinced that if they submit their disputes to arbitration, especially to the decision of someone who is conversant with the kind of business transaction that is involved, they get away from legal technicality, obtain a decision with the minimum of delay and expense, and by agreeing that the decision of the arbitrator is final and binding avoid protracted and costly proceedings by way of appeal. That most certainly is the general impression whether it be well founded or not.

So in regard to arbitration procedure with which you are so often concerned as arbitrators, may I offer a few observations?

As you know, the present position of arbitration in English law is like much else in our legal system ; it is a compromise between two distinct and at times opposing principles. English law has always attached the greatest weight to sanctity of contract. If, therefore, two persons at variance with one another agree to refer their disputes to arbitration, the Courts will generally, except in certain cases which I need not discuss here, enforce the agreement. They will say to both litigants " You selected your tribunal " with your eyes open, knowing its defects, its bias and its " infirmities, so now you must take it like your marriage " partner ' for better or for worse.' " On the other hand, two persons cannot agree to " oust the jurisdiction " of the Courts. So if an arbitrator " misconducts " himself in the legal sense or " misconducts " the proceedings before him, the Court will readily assert a jurisdiction, it may be, to remove him, or to remit and send back to him his award for further consideration, or possibly to set it aside altogether. And apart from " misconduct " in the technical legal sense, the Court will remit and send back to an arbitrator, or set aside altogether, an award which has " an " error of law on the face of it."

None of you sitting as an arbitrator likes to have his award remitted and sent back to him, still less do you like to have it set aside by the Court, and in ninety-nine cases out of a hundred that is the very last thing in the world which any ordinary party to a dispute desires. The parties have deliberately referred their dispute to you as arbitrator to get your final decision upon it, with no intention that you should give it in a form that may open the door to lengthy litigation, the very door they tried to bolt and bar when they referred the dispute to you. Hence, in all normal cases, you are best fulfilling your functions as an arbitrator by giving in your award no reasons whatsoever for your

decision. Your refraining to do so, please note, betokens no want of courage on your part. It is symptomatic of your appreciation of the true position which will meet with the approbation of the parties to the dispute. When no reasons are set out in your award for your decision, it is most difficult, if not, indeed, impossible, for any of the parties to the difference referred to you for arbitration to point to any error of law on the face of the award. To have an error of law on the face of the award it is necessary there should be what Lord Dunedin pointed out in the case of *Champsey Bhara & Co.* v. *Jivraj Balloo Spinning and Weaving Co.*, 1923, A.C., 480, at page 487: "An error "in law on the face of the award means, in their lordships' "view, that you can find in the award, or a document "actually incorporated thereto, as, for instance, a note "appended by the arbitrator stating the reasons for his "judgment, some legal proposition which is the basis of "the award and which you can then say is erroneous. It "does not mean that if in a narrative a reference is made "to a contention of one party that opens the door to seeing "first what that contention is, and then going to the con-"tract on which the parties' rights depend to see if that "contention is sound."

Do not be persuaded that there is any hardship inflicted upon either of the parties to the difference referred to you if you obdurately refuse to state the reasons for your decision on the face of the award. If in the course of the proceedings before you as arbitrator it appears that a material question of law is involved upon which one or both of the parties desire to secure the decision of the Court, you can, before making your award, state the question of law in the form of a case for the decision of the Court and adjourn the arbitration proceedings till the Court has given its decision and the time has expired for any appeal to the Court of Appeal, or if the Court or the Court of Appeal has given leave to appeal until the appeal has been heard and determined. This is a much better course

to adopt than continuing the arbitration proceedings and making your "award in the form of a special case," that is to say, giving one award if the Court decide the question of law one way, and another award if they decide it the other way. The first great advantage of your adjourning the arbitration proceedings until you get the decision of the Court is that you keep control of the matter right up to the time of making your award, and have the decision of the Court before you for guidance. When, however, you make your award in the form of a special case, you lose control and almost invariably find that when the special case contained in the award is argued before the Court it is argued on grounds that differ substantially from those advanced before you as arbitrator, and the final result may be very different from what with your full knowledge of the facts and circumstances you think is right and proper. The second great advantage is that while an award stated in the form of a special case (other than an award stated in the form of a special case under the Acquisition of Land (Assessment of Compensation) Act, 1919) may be carried on appeal right up to the House of Lords, no appeal lies against your award (not stated in the form of a special case) made after you have obtained the decision of the Court upon a case stated for its decision before you have made the award. As you know, an arbitrator is not bound if asked by a party to state his award in the form of a special case. If the case is one in which his award ought to be stated in whole or in part in the form of a special case, the Court may on the application of either or both the parties to the reference direct him to do so.

And here, perhaps, I may offer a word of advice. If in the course of proceedings before you sitting as arbitrator you are asked by one or both of the parties to state a question or questions of law for the decision of the Court, insist that they or their solicitor or counsel formulate in writing over their signature the precise question or questions of law that they want to have submitted to the Court. Then in the

case you prepare for submission to the Court state that the question or questions submitted are exactly those handed to you in writing over the party's signature. It is surprising, if you do not follow this procedure, and assume the responsibility yourself of formulating the question or questions of law, how singularly unsuccessful your efforts may subsequently be described to be by the party fighting a rear-guard action during the argument in the Court. One further word of advice. Ask both parties to give you in writing, over their respective signatures, any questions of fact on which they want you to give a finding in connection with the questions of law. That will prevent them saying before the Court that you have not given a finding on some relevant questions of fact. In addition it is only right and proper that you should, for the assistance of the Court, give your findings on any other questions of fact which from your knowledge of the case you may think will be helpful to the Court. And if there is any particular question of law on which you as arbitrator would like the decision of the Court, do not hesitate to insert your question in the case and ask the Court to answer it for your guidance. If the Court regard it as relevant they will answer it. This is the procedure which I invariably follow myself when sitting as an arbitrator, one which has been commended on a number of occasions by the Court.

As I have said, your award may be set aside for "an "error of law on the face of the award," but I must now qualify that, and say, not for every error of law. And the distinction involved is one which your profession which supplies so many arbitrators should thoroughly appreciate. If a specific question of law is referred to you to decide as arbitrator, then, although the Court would not itself have come to the same conclusion on that question as you have done in your award, it will not set aside your award for an error in law on the face of it. The authorities for this proposition are the cases of *In re King and Duveen* (1913, 2 K.B., 32) ; and *The Government of Kelantan* v. *Duff*

Development Co., Ltd. (1923, A.C. 395). On the other hand, if a dispute is referred to you as arbitrator and the decision of the main question involves your giving a decision upon a subsidiary question of law (*e.g.*, the construction of a clause in a contract) and you state your award in such a way as to show what decision in regard to the subsidiary question of law you have adopted and have proceeded upon, then, if that decision is erroneous, the Court will set aside your award as having an error of law on the face of it. For the proposition the authority is *Absalom, Ltd.*, v. *Great Western* (*London*) *Garden Village Society, Ltd.* (1933, A.C. 592).

The distinction between the two classes of cases most frequently arises in connection with building contracts, with which the members of your profession who are quantity surveyors have to deal. Suppose a dispute has arisen with the contractor as to whether on the true construction of the contract certain work is work covered by the prices in the schedule of quantities and prices. That is a specific question of law, and if you as arbitrator award " yes " or " no " on that question your award, even if you were wrong in your construction of the contract, would not be set aside on the authority of the Kelantan case. Assume, however, the controversy was as to what should be paid to the contractor for the work in question and that was the dispute which was referred you as arbitrator. You might in that case have your award set aside for an error of law on the face of it, according to the way you state your award. If you award in this way, " Having regard to the provisions " of Clause *x* of the contract, I award that the contractor " is not entitled to any payment for the work in question," you have then set out on the face of the award a subsidiary question of law, namely, the construction of Clause *x* of the contract, and you have declared that on the basis of your decision on that subsidiary question of law, viz., according to your construction of that clause, you have awarded that the contractor is not entitled to be paid anything. Should

you, in the view of the Court, be wrong in your construction, the Court will set aside your award as having an error of law on the face of it. On the other hand, if you make no reference to any clause in the contract, and merely say " I " award that the contractor is not entitled to be paid any- " thing for the work in question," then, even if you are wrong in your conclusion, your award would not be set aside as having on the face of it no error of law within the meaning of Lord Dunedin's definition. As arbitrators you will find this is sound advice.

There is one other piece of practical advice I would like to offer. It relates to an award which you make in the form of a special case. Suppose you award £*x* if the Court decide some stated question of law in one way and £*y* if the Court decide that question of law in another way. You notice that unless the case is put down for hearing by the Court and the question of law is decided, no effective award has been made. It is therefore a good thing to insert a provision in such an award saying that in the event of neither party to the arbitration setting down the case for hearing by the Court within a prescribed period from the date of your award, then you award so and so. It is not usual to insert such a provision in an award stated in the form of a special case, but I have known great difficulty arise through its omission.

While I am on the question of arbitration I would like to address an appeal to this powerful Institution, which has a great section of its members—the quantity surveyors—involved in the administration of important engineering and building contracts. The time has surely come when, if your Institution and the Institution of Civil Engineers, the Association of Consulting Engineers and the Royal Institute of British Architects took a united and determined stand, it could put an end to the objectionable practice of the engineer or architect, the agent of the " building owner " for the design and carrying out of the contract work, also acting in a judicial capacity as arbitrator, to settle disputes

between his employer, the " building owner " and the contractor. I am fully aware that the Association of Consulting Engineers and the Royal Institute of British Architects have published forms of contract which provide for the settlement of disputes between the contractor and the building owner by an independent arbitrator, and that such forms are in many cases adopted by the building owner. But in these days of keen competition and cut prices some contractors will sign almost any contract to get a job. Companies and local authorities know and take advantage of this, and many insist on the contract providing for their own engineer and architect acting as the arbitrator. I am satisfied from my own experience that this is generally done with the deliberate intention of restricting the probability of a contractor getting any payment over and above the contract amount, even on a measure and value contract. In such a case the arbitrator, whether engineer or architect under the contract, if he is a whole-time official of the company or local authority carrying out the work, is placed in a most difficult and invidious position, one which I have no hesitation in saying prevents him from doing justice as an arbitrator. Assuming the contractor is entitled to payment in respect of " extra claims," such an arbitrator knows that if he does his duty and allows such payment, it will be regarded by his company or local authority as a mark of his incompetence as an architect or engineer in the design of the works and may seriously weigh against him in connection with any increase of his salary. No arbitrator ought to be placed in that invidious position. In some cases, as I also know from my own experience, the company or local authority of which the arbitrator is an official, has not hesitated to control his freedom of discretion as arbitrator. This control can be exercised in many subtle subterranean ways, too intangible to provide any evidence for legal proceedings, but, nevertheless, most effective for their purpose. The law says that if a contractor is foolish enough to sign a contract providing that the building owner's agent—the

engineer or architect—is also to act in the judicial position as arbitrator, the contractor has done it with his eyes open, and that unless he can show, to put it shortly, that the arbitrator is acting corruptly or improperly, or is submitting himself to the control of his employers, or that certain special circumstances have arisen, the contractors must accept his decision, having known before the contract was signed what his " honest " bias was likely to be. That is good law, but bad business. Contractors will inevitably load their prices in such circumstances—the works will cost more. And, moreover, the whole procedure is against the public interest. If the eminent professional Institutions whose members are concerned decided to exert both directly their great public influence, and through their members by way of corporate control their full disciplinary power, they could put a summary end to the procedure, and public opinion would rally to their assistance. It seems a strange thing that in a number of foreign countries whose legal concepts are immeasurably inferior to those of England, and whose codes of law are crude as compared with ours, the practice of appointing an engineer or architect to act as arbitrator under a contract which he is carrying out as the agent of the building owner is not merely unknown but, if attempted, would be unenforceable. So, also, should it be in this country.

While on the subject of building and engineering contracts, it is a matter of satisfaction to all who are concerned in their impartial administration and if they relate to public works, every member of the public is so concerned, to see the increasing extent to which the important work of measuring up for the purposes of progress or interior certificates and of issuing such certificates is being made, under the contract, a matter for a quantity surveyor, and not for the engineer or architect. As all of you who are quantity surveyors are aware, it has been held by the House of Lords in the well-known case of *Hickman & Co.* v. *Roberts* (1913, A.C. 229) that a person who is issuing

certificates for payment of the contractor is acting in a judicial capacity, and that it is his duty to conduct his actions in a completely impartial manner between the building owner and the contractor, and to submit to no control of any kind by the building owner. The judicial Members of the House of Lords who delivered opinions in that case made some very straight and cogent observations as to its being the duty of a " certifier " to be absolutely independent and impartial. It is therefore with no small surprise and regret, I venture to think, most persons will regard an attempt that is now being made to introduce into engineering contracts a provision that the person measuring up and issuing certificates for the payment of the contractor shall not be deemed to be acting judicially. In other words, notwithstanding the weighty opinions of the judicial Members of the House of Lords who gave the opinions on which judgment was given in the Hickman case, that it was the bounden duty of a certifier to act with strict judicial impartiality, a course is being adopted by inserting a provision in the contract that he is not to be deemed to be acting judicially, with the deliberate intention of enabling the certifier to throw impartiality and independence to the winds, and in issuing certificates to act as the agent and the creature of the building owner. Such a provision in any engineering or building contract is entirely subversive of the professional prestige and repute of any person who is acting under the contract as a certifier. I venture to suggest that the matter is well worthy of the close investigation of quantity surveyors and of this Institution. An egregious instance recently occurred. A public authority—a water board—invited tenders for the construction of a reservoir to cost, according to the Parliamentary estimate, something in the neighbourhood of three-quarters of a million sterling. The conditions of contract provided that the contractor should be paid from time to time on certificates to be issued by the engineer, but that the engineer in issuing such certificates should not be

deemed to be acting judicially, and then to add a finishing touch the contract provided that any disputes between the contractor and the board should be determined by the engineer as arbitrator!

It is satisfactory to know that all the great firms of experienced contractors who are members of the Federation of Civil Engineering Contractors refused to tender for the contract. But of course there will always be left some contractors who will tender. Provisions of that kind, which have that practical result, are not merely in themselves vicious in principle, but are also in their immediate effects contrary to public policy. The money which Parliament authorises public authorities to expend on the construction of public works ought not to be allowed to be expended on the basis of such a contract.

As I stated at the commencement of this paper, I feared it would be of a rather discursive and inconsequential character. But some of the points of contact I have sketched between surveyors and the law are not without their practical importance for the great profession of surveyors, which is every day becoming more increasingly important for the community. Others, I venture to think, are of no less practical importance to individual practitioners in that profession.